

--This application is a continuation application of U.S. Serial No. 08/486,814, filed on June 7, 1995, now U.S. Patent No. 5,866,755, which in turn is a continuation-in-part application of U.S. Serial No. 08/383,754, filed on February 3, 1995, now U.S. Patent No. 5,789,156. This application is also a continuation-in-part of U.S. Serial No. 08/275,876, filed July 15, 1994, now U.S. Patent No. 5,654,168, which is a continuation-in-part of U.S. Serial No. 08/270,637, filed July 1, 1994, now abandoned. This application is also a continuation-in-part of U.S. Serial No. 08/260,452, filed June 14, 1994, now U.S. Patent No. 5,650,298, which is a continuation-in-part of U.S. Serial No. 08/076,327, filed June 14, 1993, now abandoned. This application is also a continuation-in-part of U.S. Serial No. 08/076,726, filed June 14, 1993, now U.S. Patent No. 5,464,758. The entire contents of each of these applications are incorporated herein by reference.--

In the claims:

Please cancel claims 3, 6, 17 and 20, without prejudice.

Please amend claims 1, 2, 4, 5, 7-16, 18, 19 and 21-26 as follows:

1. (Amended) A non-human transgenic [animal] organism having a transgene comprising a polynucleotide sequence encoding a fusion protein which inhibits transcription in eukaryotic cells, the fusion protein comprising a first polypeptide which is a Tet repressor or mutated Tet repressor that binds to a *tet* operator sequence, operatively linked to a heterologous second polypeptide which inhibits transcription in eukaryotic cells.
2. (Amended) The [animal] organism of claim 1, wherein the first polypeptide of the fusion protein is a Tet repressor that binds to *tet* operator sequences in the absence but not the presence of tetracycline or a tetracycline analogue.